

REMARKS

By the foregoing amendments claims 1, 6, 7, 10, 13 and 15 have been amended and claims 8 and 19-22 have been cancelled subject to Applicants' right to file a divisional application to the non-elected invention to which claims 19-22 are directed. Thus, claims 1-3, 6, 7, 9-13, 15, 16 and 18, 23 and 24 remain in the application.

Claim 15 was objected to in the outstanding Office Action because of an informality. To correct this informality, in line 2 of the claim "the shank" has been replaced with --the resilient member-- as required in the objection.

Claims 1, 2, 6-11, 13, 15, 16, 18, 23 and 24 stand rejected in the Office Action under 35 U.S.C. §102(b) as being clearly anticipated by Atkinson et al, U.S. PG Pub No. 2002/0087216A1 as stated on page 3 of the Office Action.

Claims 1, 2, 6-11, 13, 15, 16, 18 and 23 are further rejected in the Office Action under 35 U.S.C. §102(b) as being clearly anticipated by Fikes et al, U.S. Patent 4,911,724, as indicated in page 4 of the Office Action.

These rejections are hereby traversed and reconsideration thereof is respectfully requested in view of the above amendments to the claims and Applicants' remarks set forth below.

The present invention is directed to an improved prosthetic foot and prosthesis affording a high performance with improved dynamic response capabilities as these capabilities relate to applied force mechanics. As discussed in the application specification with respect to Figs. 1 and 2, the prosthetic foot of the invention utilizes the convexly curved surfaces of the calf shank and foot keel in

creating both improved horizontal linear velocity and dynamic response of the prosthesis. The relatively larger radii of curvature of the proximal terminal end of the shank and the smaller radius of curvature at the lower end of the shank, for a quicker response characteristics, contribute to this improved performance as discussed in the specification.

As recited in claim 1 as amended, the prosthetic foot comprises a longitudinally extending foot keel having a forefoot portion, a raised midfoot portion and a hindfoot portion. A resilient, monolithically formed shank extends upwardly from the foot keel, by way of an anterior facing continuous convexly curved surface with increasing radius of curvature, to form a lower ankle joint area and upper resilient shank terminal portion for connection with a lower extremity prosthetic structure secured to a person's residual limb. This lower portion and the upper terminal portion of the shank extending upwardly from the foot keel are anterior facing convexly curved. The shank and at least the hindfoot portion of the foot keel are monolithically formed.

The cited published application of Atkinson et al does not disclose or suggest the prosthetic foot of the present invention as recited in claim 1 as amended. Atkinson et al actually teach away from the present invention by their use of a straight pylon or shank connected to a generally C-shaped ankle. The ankle has a weakened portion, 41 in Fig. 3, in the middle of the C-shape to permit vertical flexing of the ankle. The Atkinson et al prosthesis is similar to that in the patent to Martin et al, U.S. Patent No. 5,897,594, referred to in the Background Art section of Applicants' specification. Martin et al also disclose the use of an approximately C-shaped insert or ankle. The drawbacks of such an arrangement are referred to in

the application specification. The "upper portion" of Atkinson et al's C-shaped ankle below the pylon as denoted in the Office Action reproduction of Fig. 11 of Atkinson et al is not an upper terminal portion of a resilient shank as in the present invention. The Atkinson et al prosthesis does create the improved horizontal linear velocity and dynamic response of the prosthesis of the present invention.

The energy responsive prosthetic leg of Fikes et al employs an L-shaped shin member 11 having a lower ankle portion 22, Fig. 2, and an elliptical base member 12 for attachment to an artificial foot member 30. Fikes et al do not disclose or suggest a prosthetic foot wherein the shank and at least the hindfoot portion of a longitudinally extending foot keel are monolithically formed, the foot keel having a forefoot portion, a midfoot portion and a hindfoot portion as disclosed and claimed by Applicants in the claims as amended.

In view of the above amendments and remarks, it is respectfully submitted that application claims as amended patentably define over the cited references. Accordingly, reconsideration and allowance of the claims is requested.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment to the undersigned's Deposit Account, Deposit Account No. 01-2135 (Case No. 183.39735PA7).

Respectfully submitted,



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Attachment
RJS:dlh